

# 3 ACCA



THIRD AFRICA CONGRESS ON  
CONSERVATION AGRICULTURE  
5-8 June 2023 | Rabat, Morocco

## SCALING ADOPTION OF CON-SERVATION AGRICULTURE BASED SUSTAINABLE INTENSIFICATION:

enabled by farmer organizations  
coupled to public-private-sector  
partnerships

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Theme: 3

Building a Resilient Future in Africa  
through Conservation Agriculture and Sustainable  
Mechanization

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# Urgency of scaling CASI in Africa

**Perfect storm: Natural resource degradation, food insecurity, poverty, yield gaps, weak value chains, climate volatility**

**Need urgent action on improved soil and water management, increased food crop yields and resilience (eco-efficient intensification), efficient provision of affordable seed, agrochemicals, equipment, knowledge to all farm sizes**

**How to accelerate scaling of CASI (CA + SI best practices) to sustainably boost yields and farm incomes?**

**CA areas 2015/16 = 1.54 mha >>> 2030 target = 1 mha**

# Public-private partnerships, and farmers

Many decades of public-agency led agricultural (rural) development

Current narratives of private-sector or agri-business led agricultural development (including private extension services)

Also decades of discussion about public-private partnerships

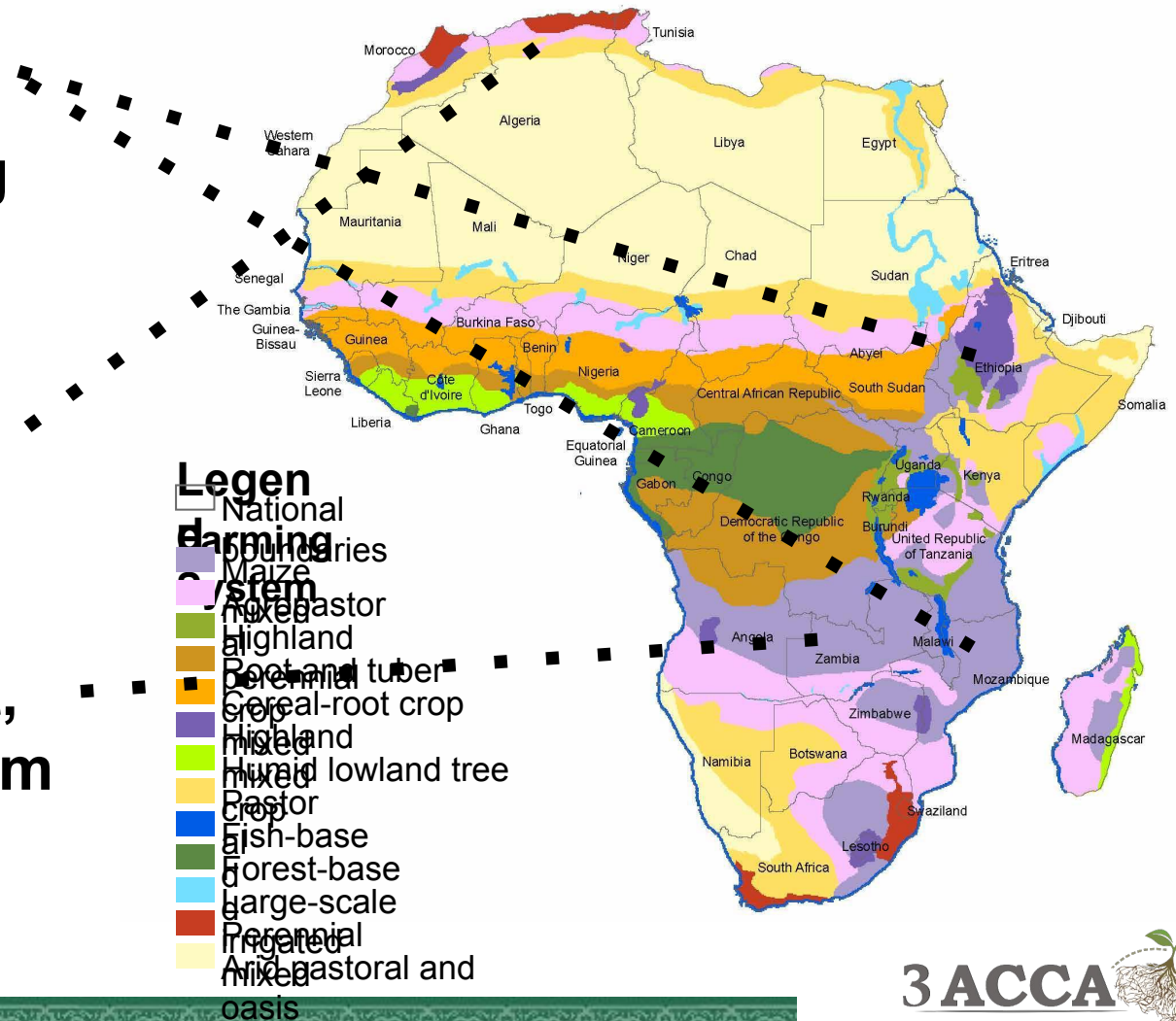
**How can farmers connect to public services or private/agribusiness services or mutually-reinforcing public-private services for the adoption and scaling of CASI?**

# Milestone cases of CASI in three farming systems

1. SIMLESA , Sustainable intensification of maize legume systems, ESA, Maize Mixed Farming System

2. CANA, Adapting CA for smallholders, Magreb, Agropastoral Farming System

3. CFU, Conservation Farming Unit, Zambia, Maize Mixed Farming System



# (1). SIMLESA , Sustainable intensification of maize legume systems, ESA

**Maize Mixed Farming System (maize, legumes, livestock, ...)**  
**A country-owned regional research initiative based on CASI principles across 8 countries (supported by CGIAR and ACIAR)**

- **50 farmer-led Agricultural Innovation System platforms**
- **multiple extension and other public agencies**
- > **40 engaged SMEs including seed providers and equipment providers**

**> 480,000 smallholder adopters with increased yields in 8 years**

# SIMLESA (cont 1)

SMEs brought in technology (e.g., seed, equipment) and facilitated marketing chains for surpluses – valuable agribusiness contributions

Public participatory research and extension were central to the adaptive research, demonstrations, field days and training.

The farmer-led AIPs coordinated the public and private activities at the community level which also brought in NGOs and district officials.

## SIMLESA (cont 2)

In the AIPs, farmer discovery and learning were critical for finetuning CASI practices to the local farming systems and fostering adoption and local scaling – especially related to mechanisation and herbicides management.

Increased yields and income and saving of labour and costs are the drivers of CA adoption and scaling.

Farmers adopted CASI practices in turn (not as a package) and the combination and sequence depended on local contexts, e.g., fewer livestock favoured more residue retention



## **2. CANA Adaptation CA for smallholders, Magreb**

**Agropastoral Farming System, 3 countries, Magreb**

**Coordinated regional research project for adaptation of CA to climate stressed semi-arid dryland crop-livestock agriculture**

**Establishment of a series of integrated participatory research hubs across the 3 countries, in complimentary agroecologies**

**Excellent cooperation with farming communities and successful adaptation of CA practices, and ongoing adoption**

# CANA (cont)

Maintaining ground cover over long dry seasons is a challenge in such mono-modal rainfall zones

Livestock husbandry and the supply of fodder/feed lies at the heart of improvement of these crop-livestock system

Improvement of value chains, especially for the availability of adapted zero tillage equipment, is essential

Community social capital to enable community decisions on livestock grazing management are critical for adoption of CASI

### **3. CFU Conservation Farming Unit, Zambia**

**Maize Mixed Farming System in Zambia with regional extensions**

**Strong focus on  
ripping/pits practices of CASI and  
Lead Farmers and training in farmer groups  
extensive coordination with SMEs (fertilisers,  
equipment and marketing)**

**> 360,000 adopting farmers over 25 years**

## CFU (cont)

Many innovations in Lead Farmer and agribusiness arrangements practices, e.g., e-vouchers

Effective incorporation of Faidherbia trees into the CASI system; but weed control remains a challenge

Modest overall direct public extension or research inputs

Timeliness of tractor based ripping services remained a challenge but strong adoption of animal draft ripping and pitting by smallholders

# Conclusion

**A naïve dependence on either public sector or private agribusiness drivers alone for scaling will not accelerate adoption**

**Thus, scaling CASI depends on mutually-supporting or complementary roles of public research, extension and credit, and private (agribusiness) input and service provision – with roles and balance depending on the local farming system**

**Agricultural Innovation Platforms are the essential connectivity for farmer learning and connectivity with public and private services, and add value to demonstrations and training**

## Conclusion 2

**The strategic design of CASI scaling must consider the whole farm system and be tuned to different farming systems (livestock and trees add system resilience, cash for crop inputs and nutrition for families)**

**Research should concentrate on the scaling process (including farmer learning, agribusiness effectiveness and social capital).**

**The time has come to invest in the scaling of existing CASI practices, with major investment in partnership and social capitals – these 3 cases**

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